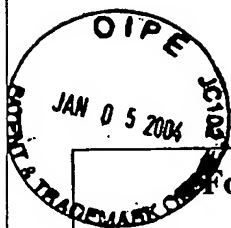




<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office		Docket No. ISIS-5318	Application No. 10/700,939
		Applicant David J. Ecker, et al.	
		Filing Date November 4, 2003	Group Not Yet Assigned
		Confirmation No. Not Yet Assigned	
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>			
lw	1	Copy of the PCT International Search Report dated December 1, 2003 (PCT/US03/19043)	
<b>EXAMINER</b> L Wollaberfer		<b>DATE CONSIDERED</b> 7/6/06	

**Form PTO-1449 Modified**

List of Patent and Publications  
Cited by Applicant  
(Use several sheets if necessary)

U.S. Department of Commerce  
Patent and Trademark Office

Docket No.  
ISIS-5318

Application No.  
10/700,939

Applicant  
David J. Ecker, et al.

Filing Date  
November 4, 2003

Group  
Not Yet Assigned

Confirmation No.  
Not Yet Assigned

**U. S. PATENT DOCUMENTS**

Examiner Initial		Document No.	Date	Name	Class	Subclass

**FOREIGN PATENT DOCUMENTS**

Examiner Initial		Document No.	Date	Country	Translation	
					YES	NO
JW	2	WO 99/14226	03/25/99	PCT		

EXAMINER

J. Wollenberger

DATE CONSIDERED

7/6/06



<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office		Docket No. ISIS-5318	Application No. 10/700,939
		Applicant David J. Ecker, et al.	
		Filing Date November 4, 2003	Group 1645
		Confirmation No. 5964	
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>			
SW	279	Copy of the PCT International Search Report dated April 13, 2004 (PCT/US03/35072)	
EXAMINER		DATE CONSIDERED	

P. Wollenberger

7/6/06



<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office	Docket No. ISIS-5318	Application No. 10/700,939
	Applicant David J. Ecker, et al.	
	Filing Date November 4, 2003	Group 1645
	Confirmation No. 5964	

**U. S. PATENT DOCUMENTS**

Examiner Initial		Document No.	Date	Name	Class	Subclass
SW	280	5,854,410	12/29/98	Arnold, Jr., et al.	536	23.1
	281	6,380,169 B1	04/20/02	Adams, et al.	514	44

**FOREIGN PATENT DOCUMENTS**

Examiner Initial		Document No.	Date	Country	Translation	
					YES	NO

EXAMINER

S. Wollenberger

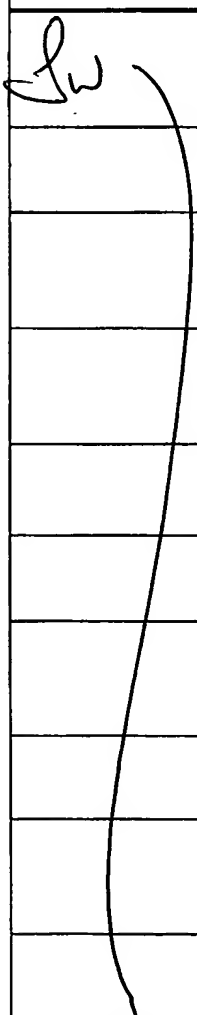
DATE CONSIDERED


7/6/06



<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office		Docket No. ISIS-5318	Application No. 10/700,939
		Applicant David J. Ecker, et al.	
		Filing Date November 4, 2003	Group 1645
		Confirmation No. 5964	
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>			
* <i>Sw</i>	3	Ausubel, et al., Eds., Current Protocols in Molecular Biology, 1988, Wiley & Sons, New York	
	4	Beaucage S. and Iyer, R., "Advances in the synthesis of oligonucleotides by the phosphoramidite approach", <i>Tetrahedron Letters</i> , 1992, 48, 2223-2311	
	5	Beaucage S. and Iyer, R., "The synthesis of modified oligonucleotides by the phosphoramidite approach and their applications", <i>Tetrahedron</i> , 1993, 49, 6123-6194	
	6	Bhat, et al., "A Simple and Convenient Method for the Selective N-Acylation of Cytosine Nucleosides", <i>Nucleosides and Nucleotides</i> , 1989, 8, 179-183	
	7	Crooke, S.T. and Bennett, C.F., "Progress in Antisense Oligonucleotide Therapeutics", <i>Annu. Rev. Pharmacol. Toxicol.</i> , 1996, 36, 107-129	
	8	Crooke, et al., "Kinetic characteristics of Escherichia coli Rnase H1: cleavage of various antisense oligonucleotide-RNA duplexes", <i>Biochem. J.</i> , 1995, 312, 599-608	
	9	Dagle, et al., "Targeted degradation of mRNA in Xenopus oocytes and embryos directed by modified oligonucleotides: studies of An2 and cyclin in embryogenesis", <i>Nucleic Acids Research</i> , 1990, 18, 4751-4757	
	10	Dagle, et al., "Pathways of Degradation and Mechanism of Action of Antisense Oligonucleotides in <u>Xenopus laevis</u> Embryos", <i>Antisense Res. And Dev.</i> , 1991, 1, 11-20	
	11	Dagle, et al., "Physical properties of oligonucleotides containing phosphoramidate-modified internucleoside linkages", <i>Nucleic Acids Research</i> , 1991, 19, 1805-1810	
	12	Englisch, U. And Gauss, D.H., "Chemically Modified Oligonucleotides as Probes and Inhibitors", <i>Angewandt Chemie, International Edition Engl.</i> , 1991, 30, 613-629	
	<b>EXAMINER</b>		<b>DATE CONSIDERED</b>

\* A copy of this reference will not be forwarded to the U.S. Patent and Trademark Office since it is believed to be too voluminous and easily obtainable by the Examiner.

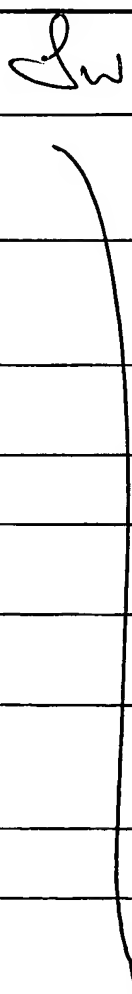
<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office		Docket No. ISIS-5318	Application No. 10/700,939
		Applicant David J. Ecker, et al.	
		Filing Date November 4, 2003	Group 1645
		Confirmation No. 5964	
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>			
	13	Haeuptle and Dobberstein, "Translation arrest by oligonucleotides complementary to mRNA coding sequences yields polypeptides of predetermined length", <i>Nucleic Acids Res.</i> , 1986, 14, 1427-1448	
	14	Eder, P.S. and Walder, J.A., "Ribonuclease H from K562 Human Erythroleukemia Cells", <i>J. Biol. Chem.</i> , 1991, 266, 6472-6479	
	15	Kawasaki, et al., "Uniformly Modified 2'-Deoxy-2'-fluoro Phosphorothioate Oligonucleotides as Nuclease-Resistant Antisense Compounds with High Affinity and Specificity for RNA Targets", <i>J. Med. Chem.</i> , 1993, 36, 831-841	
	16	Kawasaki, et al., "Synthesis and Biophysical Studies of 2'-dRIBO-2'-F Modified Oligonucleotides", ISIS Pharmaceuticals, Inc., 2280 Faraday Avenue, Carlsbad, CA 92008, USA	
	17	Martin, "Ein neuer Zugang zu 2'-O-Alkylribonucleosiden und Eigenschaften deren Oligonucleotide", <i>Helv. Chim. Acta.</i> , 1995, 78, 486-504	
	18	Monia, et al., "Selective Inhibition of Mutant Ha-ras mRNA Expression by Antisense Oligonucleotides", <i>J. Biol. Chem.</i> , 1992, 267, 19954-19962	
	19	Monia, et al., "Evaluation of 2'-Modified Oligonucleotides Containing 2'-Deoxy Gaps as Antisense Inhibitors of Gene Expression", <i>J. Biol. Chem.</i> , 1993, 268, 14514-14522	
	20	Reese, C.B., et al., "4-(1,2,4-Triazol-1-yl)-and 4-(3-Nitro-1,2,4-triazol-1-yl)-1-(β-D-Arabinofuranosyl)cytosine(Ara-C)", <i>J. Chem. Soc. Perkin Trans. I</i> , 1982, pgs. 1171-1176	
	21	Robins, et al., "Nucleic acid related compounds. 41. Restricted furanose conformations of 3',5'-O(1,1,3,3-tetraisopropylidene-1,3-diyl)nucleosides provide a convenient evaluation of anomeric configuration <sup>1,2</sup> ", <i>Can. J. Chem.</i> , 1983, 61, 1911-1920	
	22	Saison-Behmoaras, T., et al., "Short modified antisense oligonucleotides directed against Ha-ras point mutation induce selective cleavage of the mRNA and inhibit T24 cells proliferation", <i>EMBO</i> , 1991, 10, 1111-1118	
<b>EXAMINER</b>		<b>DATE CONSIDERED</b>	


<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office		Docket No. ISIS-5318	Application No. 10/700,939
		Applicant David J. Ecker, et al.	
		Filing Date November 4, 2003	Group 1645
		Confirmation No. 5964	
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>			
* 	23	Concise Encyclopedia of Polymer Science and Engineering, pgs. 858-859, Kroschwitz, J.I., Ed., John Wiley & Sons, 1990	
*	24	Oligonucleotide Synthesis, A Practical Approach, M.J. Gait, Ed., IRL Press, 1984	
*	25	Oligonucleotide and Analogs, A Practical Approach, F. Eckstein, Ed., IRL Press, 1991, Chapters 1-7	
	26	De Mesmeker, et al., "Antisense Oligonucleotides", <i>Acc. Chem. Res.</i> , 1995, 28, 366-374	
	27	Sands, et al., "Biodistribution and Metabolism of Internally <sup>3</sup> H-Labeled Oligonucleotides. II. 3',5'-Blocked Oligonucleotides", <i>Am. Soc. Pharmacol. Exp. Ther.</i> , 1995, 47, 636-646	
	28	Strickland, et al., "Antisense RNA Directed Against the 3' Noncoding Region Prevents Dormant mRNA Activation in Mouse Oocytes", <i>Science</i> , 1988, 241, 680-684	
	29	Goodchild, et al., "Conjugates of Oligonucleotides and Modified Oligonucleotides: A Review of their Synthesis and Properties", <i>Bioconjugate Chem.</i> , 1990, 1(3), 165-187	
	30	Menelev, et al., "Study of antisense oligonucleotide phosphorothioates containing segments of oligodeoxynucleotides and 2'-methyloligoribonucleotides," <i>Bioorg. &amp; Med. Chem. Lett.</i> , 1994, 4(24), 2929-2934	
	31	Lengyel, <i>J. Enzym. Res.</i> , 1987, 7, 511-519	
	32	Milligan, <i>J. Med. Chem.</i> , 1993, 36, 1923	
<b>EXAMINER</b>		<b>DATE CONSIDERED</b>	

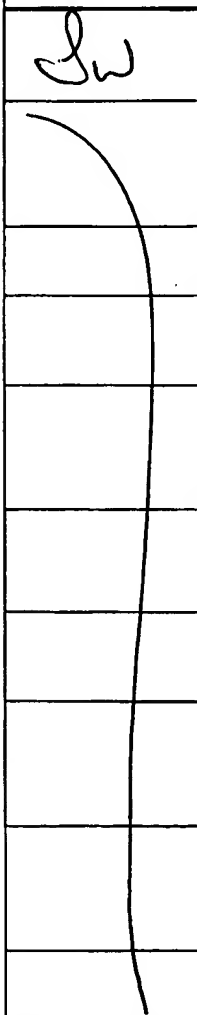
\* A copy of these references will not be forwarded to the U.S. Patent and Trademark Office since they are believed to be too voluminous and easily obtainable by the Examiner.

<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office		Docket No. ISIS-5318	Application No. 10/700,939
		Applicant David J. Ecker, et al.	
		Filing Date November 4, 2003	Group 1645
		Confirmation No. 5964	
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>			
33	Tseng, et al., "Antisense Oligonucleotide Technology in the Development of Cancer Therapeutics", <i>Cancer Gene Therapeutics</i> , 1994, 1, 65-71		
34	Westermann, et al., "Inhibition of expression of SV40 virus large T-antigen by antisense oligodeoxyribonucleotides", <i>Biomed. B. Acta.</i> , 1989, 48, 85-93		
35	Stein, C.A. et al., "Antisense Oligonucleotides as Therapeutic Agents - Is the Bullet Really Magical?", <i>Science</i> , 1993, 261, 1004-1012		
36	Stull, et al., "Antigene, Ribozyme and Aptamer Nucleic Acid Drugs: Progress and Prospects", <i>Pharm. Res.</i> , 1995, <i>Pharm. Rev.</i> , 12, 465-482		
37	Uhlmann, et al., "Antisense Oligonucleotides: A New Therapeutic Principle", <i>Chem. Rev.</i> , 1990, 90, 543		
38	Akashi, et al., "Novel Stationary Phases for Affinity Chromatography. Nucleobase-Selective Recognition of Nucleosides and Nucleotides on Poly(9-vinyladenine)-Supported Silica Gel <sup>1)</sup> ", <i>Chem. Letters</i> , 1988, 1093-1096		
39	Alberts, et al., "DNA-Cellulose Chromatography", <i>Meth. Enzymol.</i> , 1971, 21, 198-217		
40	Arndt-Jovin, et al., "Covalent Attachment of DNA to Agarose", <i>Eur. J. Biochem.</i> , 1975, 54, 411-418		
41	Blanks, et al., "An oligodeoxynucleotide affinity column for the isolation of sequence specific DNA binding proteins", <i>Nucleic Acids Res.</i> , 1988, 16, 10283-10299		
42	Blomberg, P., "Control of replication of plasmid R1: the duplex between the antisense RNA, CopA, and its target, CopT, is processed specifically <i>in vivo</i> and <i>in vitro</i> by Rnase III", <i>EMBO J.</i> , 1990, 9, 2331-2340		
<b>EXAMINER</b>		<b>DATE CONSIDERED</b>	













<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office		Docket No. ISIS-5318	Application No. 10/700,939
		Applicant David J. Ecker, et al.	
		Filing Date November 4, 2003	Group 1645
		Confirmation No. 5964	
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>			
	43	Bunemann, et al., <b>Immobilization of denatured DNA to macroporous supports: I. Efficiency of different coupling procedures</b> , <i>Nucleic Acids Res.</i> , 1982, 10, 7163-7180	
	44	Bunemann, H., "Immobilization of denatured DNA to macroporous supports: II. Steric and kinetic parameters of heterogeneous hybridization reactions", <i>Nucleic Acids Res.</i> , 1982, 10, 7181-7196	
	45	Chodosh, et al., "A Single Polypeptide Possesses the Binding and Transcription Activities of the Adenovirus Major Late Transcription Factor", <i>Mol. Cell. Biol.</i> , 1986, 6, 4723-4733	
	46	Crooke, et al., "Pharmacokinetic Properties of Several Novel Oligonucleotide Analogs in mice", <i>J. Pharmacol. Exp. Ther.</i> , 1996, 277, 923-927	
	47	Dake, et al., "Purification and Properties of the Major Nuclease from Mitochondria of <i>Saccharomyces cerevisiae</i> ", <i>J. Biol. Chem.</i> , 1988, 263, 7691-7702	
	48	Day, et al., "Immobilization of polynucleotides on magnetic particles", <i>Biochem. J.</i> , 1991, 278, 735-740	
	49	Drmanac, et al., "DNA Sequence Determination by Hybridization: A Strategy for Efficient Large-Scale Sequencing", <i>Science</i> , 1993, 260, 1649-1652	
	50	Duncan, et al., "Affinity Chromatography of a Sequence-Specific DNA Binding Protein Using Teflon-Linked Oligonucleotides", <i>Anal. Biochem.</i> , 1988, 169, 104-108	
	51	Dunn, J.J. and Studier, F.W., "Effect of RNAase III Cleavage on Translation of Bacteriophage T7 Messenger RNAs", <i>J. Mol. Biol.</i> , 1975, 99, 487-499	
	52	Elela, et al., "RNase III Cleaves Eukaryotic Preribosomal RNA at a U3 snoRNP-Dependent Site", <i>Cell</i> , 1996, 85, 115-124	
<b>EXAMINER</b>		<b>DATE CONSIDERED</b>	

<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office		Docket No. ISIS-5318	Application No. 10/700,939
		Applicant David J. Ecker, et al.	
		Filing Date November 4, 2003	Group 1645
		Confirmation No. 5964	
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>			
	53	Fahy, et al., "Design and synthesis of polyacrylamide-based oligonucleotide supports for use in nucleic acid diagnostics", <i>Nucl. Acids Res.</i> , 1993, 21, 1819-1826	
	54	Fishel, et al., "Z-DNA Affinity Chromatography", <i>Methods Enzymol.</i> , 1990, 184, 328-342	
	55	Fodor, et al., "Light-Directed, Spatially Addressable Parallel Chemical Synthesis", <i>Science</i> , 1991, 251, 767-773	
	56	Fusi, et al., "Ribonucleases from the extreme thermophilic archaebacterium <i>S. Solfataricus</i> ", <i>Eur. J. Biochem.</i> , 1993, 16, 305-310	
	57	Gabrielsen, et al., "Magnetic DNA affinity purification of yeast transcription factor $\tau$ -a new purification principle for the ultrarapid isolation of near homogeneous factor", <i>Nucleic Acids Research</i> , 1989, 17, 6253-6267	
	58	Gbenle, " <i>Trypanosoma brucei</i> : Calcium-Dependent Endoribonuclease is Associated with Inhibitor Protein", <i>Exp. Parasitol.</i> , 1990, 71, 432-438	
	59	Gbenle, "Simultaneous Isolation of Cytoplasmic Endoribonuclease and Exoribonuclease of <i>Trypanosoma Brucei</i> ", <i>Mol. Biochem. Parasitol.</i> , 1985, 15, 37-47	
	60	Gerdes, K., et al., "Mechanism of Killer Gene Activation. Antisense RNA-dependent Rnase III Cleavage Ensures Rapid Turn-over of the Stable-Hok, SrnB and PndA Effector Messenger RNAs", <i>J. Mol. Biol.</i> , 1992, 226, 637-649	
	61	Gingeras, et al., "Hybridization properties of immobilized nucleic acids", <i>Nucl. Acids Res.</i> , 1987, 15, 5373-5391	
	62	Goldkorn, T. And Prockop, D.J., "A simple and efficient enzymatic method for covalent attachment of DNA to cellulose. Application for hybridization-restriction analysis and for <i>in vitro</i> synthesis of DNA probes", <i>Nucleic Acids Res.</i> , 1986, 14, 9171-9191	
<b>EXAMINER</b>		<b>DATE CONSIDERED</b>	

<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office		Docket No. ISIS-5318	Application No. 10/700,939
		Applicant David J. Ecker, et al.	
		Filing Date November 4, 2003	Group 1645
		Confirmation No. 5964	
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>			
	63	Goss, T.A. and Bard, M., "High-performance affinity chromatography of DNA", <i>J. Chromatogr.</i> , 1990, 508, 279-287	
	64	Guo, et al., "Direct fluorescence analysis of genetic polymorphisms by hybridization with oligonucleotide arrays on glass supports", <i>Nucl. Acids Res.</i> , 1994, 22, 5456-5465	
	65	Kadonaga, J.T. and Tjian, R., "Affinity purification of sequence-specific DNA binding proteins", <i>Proc. Natl. Acad. Sci. USA</i> , 1986, 83, 5889-5893	
	66	Kadonaga, J.T., "Purification of Sequence-Specific Binding Proteins b DNA Affinity Chromatography", <i>Methods in Enzymology</i> , 1991, 208, 10-23	
	67	Kasher, et al., "Rapid Enrichment of HeLa Transcription Factors IIIB and IIIC by Using Affinity Chromatography Based on Avidin-Biotin Interactions", <i>Mol. And Cell. Biol.</i> , 1986, 6, 3117-3127	
	68	Kawaguchi, et al., "Purification of DNA-binding transcription factors by their selective adsorption of the affinity atex particles", <i>Nucleic Acids Research</i> , 1989, 17, 6229-6240	
	69	Kennedy, "Hydrophobic Chromatography", <i>Methods in Enzymology</i> , 1990, 182, 339-343	
	70	Knecht, D., "Application of Antisense RNA to the Study of the Cytoskeleton: Background, Principles, and a Summary of Results Obtained with Myosin Heavy Chain", <i>Cell Motil. and Cytoskel.</i> , 1989, 14, 92-102	
	71	Knochbin and Lawrence, "An antisense RNA involved in p53 mRNA maturation in murine erythroleukemia cells induced to differentiate", <i>EMBO J.</i> , 1989, 8, 4107-4114	
	72	Krinke, L. And Wulff, D., "RNase III-dependent hybrolsis of $\lambda$ cII-O gene mRNA mediated by $\lambda$ OOP antisense RNA", <i>Genes &amp; Devel.</i> , 1990, 4, 2223-2233	
<b>EXAMINER</b>		<b>DATE CONSIDERED</b>	

<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office		Docket No. ISIS-5318	Application No. 10/700,939
		Applicant David J. Ecker, et al.	
		Filing Date November 4, 2003	Group 1645
		Confirmation No. 5964	
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>			
2w	73	Krystal, et al., "N-myc mRNA Forms an RNA-RNA Duplex with Endogenous Antisense Transcripts", <i>Mol. And Cell. Biol.</i> , 1990, 10, 4180-4191	
	74	Liao, "A pyrimidine-guanine sequence-specific ribonuclease from <i>Rana catesbeiana</i> (bullfrog) oocytes", <i>Nucl. Acids Res.</i> , 1992, 20, 1371-1377	
	75	Lohrmann, et al., "New Solid Supports for DNA Synthesis" <i>DNA</i> , 1984, 3, 122	
	76	Lund, et al., "Assessment of methods for covalent binding of nucleic acids to magnetic beads, Dynabeads™, and the characteristics of the bound nucleic acids in hybridization reactions", <i>Nucl. Acids Res.</i> , 1988, 16, 10861-10880	
	77	Maniak, M. And Nellen, W., "Evidence for a feedback regulated back-up promoter which controls permanent expression of a <i>Dictyostelium</i> gene", <i>Nucl. Acids Res.</i> , 1990, 18, 5375-5380	
	78	Matson, et al., "Biopolymer Synthesis on Polypropylene Supports", <i>Anal. Biochem.</i> , 1994, 217, 306-310	
	79	Maskos, U. And Southern, E.M., "Oligonucleotide hybridisations on glass supports: a novel linker for oligonucleotide synthesis and hybridisation properties of oligonucleotides synthesised <i>in situ</i> ", <i>Nucl. Acids. Res.</i> , 1992, 20, 1679-1684	
	80	Meegan, J.M. and Marcus, P.I., "Double-Stranded Ribonuclease Coinduced with Interferon", <i>Science</i> , 1989, 244, 1089-1091	
	81	Narhi, et al., "Hydrophobic Interaction Chromatography in Alkaline pH", <i>Anal. Biochem.</i> , 1989, 182, 266-270	
	82	Nellen, W., C., "What makes an mRNA anti-sense-itive?", <i>Curr. Opin. Cell. Biol.</i> , 1993, 18, 419-424	
<b>EXAMINER</b>		<b>DATE CONSIDERED</b>	

<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office	Docket No. ISIS-5318	Application No. 10/700,939
	Applicant David J. Ecker, et al.	
	Filing Date November 4, 2003	Group 1645
	Confirmation No. 5964	
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>		
	83	Nellen, W., et al., "Mechanisms of gene regulation by endogenous and artificially introduced antisense RNA", <i>Biochem., Soc. Trans.</i> , 1992, 20, 750-754
	84	Nitta, et al., "Purification and Some Properties of Ribonuclease from <i>Xenopus laevis</i> Eggs", <i>Biol. Pharm. Bull. (Jpn.)</i> , 1993, 16, 353-356
	85	Noguchi, et al., "Characterization of an Antisense Inr Element in the eIF-2 $\alpha$ Gene", <i>J. Biol. Chem.</i> , 1994, 269, 29161-29167
	86	Noyes, et al., "Nucleic Acid Hybridization Using DNA Covalently Coupled to Cellulose", <i>Cell</i> , 1975, 5, 301-310
	87	Pease, et al., "Light-generated oligonucleotide arrays for rapid DNA sequence analysis", <i>Proc. Natl. Acad. Sci. USA</i> , 1994, 91, 5022-5026
	88	Pon, et al., "Derivatization of Controlled Pore Glass Beads for Solid Phase Oligonucleotide Synthesis", <i>BioTech.</i> , 1988, 6, 768-773
	89	Prokipcak, et al., "Purification and Properties of a Protein that Binds to the C-terminal Coding Region of Human c-myc mRNA", <i>J. Biol. Chem.</i> , 1994, 269, 9261-2969
	90	Saito, H. And Richardson, C., "Processing of mRNA by Ribonuclease III Regulates Expression of Gene 1.2 of Bacteriophage T7", 1981, <i>Cell</i> , 27, 533-542
	91	Schott, "Template-Chromatographie An Stationar Gebundenen Oligonukleotiden", <i>J. Chromatogr.</i> , 1975, 115, 461-476
	92	Seliger, H., "Handelsubliche Polymere als Trager in der Oligonucleotidsynthese, 1", <i>Die Makromolekulart Chemie</i> , 1975, 176, 1611-1627
<b>EXAMINER</b>		<b>DATE CONSIDERED</b>

<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office		Docket No. ISIS-5318	Application No. 10/700,939
		Applicant David J. Ecker, et al.	
		Filing Date November 4, 2003	Group 1645
		Confirmation No. 5964	
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>			
Sw	93	Seliger, H., and Aumann, G., "Trager-Oigonucleotidsynthese an unvernetzten Copolymeren aus Vinylalkohol und N-Vinylpyrrolidon", <i>Die Makromolekulare Chemie</i> , 1975, 176, 609-627	
	94	Seliger, H. And Aumann, G., "Oligonucleotide Synthesis on a Polymer Support Soluble in Water and Pyridine", <i>Tetrahedron Letters</i> , 1973, No. 31, 2911-2914	
	95	Siddell, S.G., "RNA Hybridization to DNA Coupled with Cyanogen-Bromide-Activated Sephadex", <i>Eur. J. Biochem.</i> , 1978, 92, 621-629	
	96	Smith, et al., "The synthesis of oigonucleotides containing an aliphatic amino group at the 5' terminus: synthesis of fluorescent DNA primers for use in DNA sequence analysis", <i>Nucl. Acids Res.</i> , 1985, 13, 2399-2412	
	97	Stoldt, P. And Zillig, W., "Antisense RNA mediates transcriptional procesing in an archaebacterium, indicating a novel kind of RNase activity", <i>Mol. Microbiol.</i> , 1993, 7, 875-882	
	98	Syvanen, et al., "Quantification of polymerase chain reaction products by affinity-based hybrid collection", <i>Nucl. Acids Res.</i> , 1988, 16, 11327-11338	
	99	Szyf, et al., "Growth Regulation of Mouse DNA Methyltransferase Gene Expression", <i>J. Biol. Chem.</i> , 1991, 266, 10027-10030	
	100	McBride, L.J. and Caruthers, M.H., "An Investigation of Several Deoxynucleoside Phosphoramidites Useful for Synthesizing Deoxyoligonucleotides", <i>Tetrahedron Letters</i> , 1983, 24, 245-248	
	101	Van Ness, et al., "A versatile solid support system for oligodeoxynucleotide probe-based hybridization assays", <i>Nucleic Acids Research</i> , 1991, 19, 3345-3350	
	102	Volk, et al., "An antisense transcript from the <i>Xenopus laevis</i> bFGF gene coding for an evolutionariy conserved 24 kd protein", <i>EMBO J.</i> , 1989, 8, 2983-2988	
<b>EXAMINER</b>		<b>DATE CONSIDERED</b>	



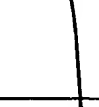

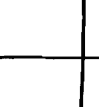

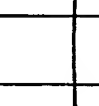
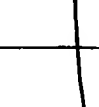


<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office		Docket No. ISIS-5318	Application No. 10/700,939
		Applicant David J. Ecker, et al.	
		Filing Date November 4, 2003	Group 1645
		Confirmation No. 5964	
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>			
EW	103	Wetlaufer, et al., "Surfactant-Mediated Protein Hydrophobic-Interaction Chromatography", <i>J. Chromatography</i> , 1986, 359, 55-60	
	104	Wu, et al., "Purification and Properties of <i>Drosophila</i> Heat Shock Activator Protein", <i>Science</i> , 1987, 238, 1247-1253	
	105	Wu, et al., "High Resolution Separation and Analysis of Biological Macromolecules", <i>Methods in Enzymology</i> , 1996, 270, 27-47	
	106	Yashima, et al., "High-performance affinity chromatography of oligonucleotides on nucleic acid analogue immobilized silica gel columns", <i>J. Chromatog.</i> , 1992, 603, 111-119	
	107	Yasuda, et al., "Purification and characterization of a ribonuclease from human spleen", <i>Eur. J. Biochem.</i> , 1990, 191, 523-529	
	108	Zarytova, et al., "Affinity Chromatography of DNA Fragments and P-Modified Oligonucleotides", <i>Analyt. Biochem.</i> , 1990, 188, 214-218	
	109	Zuckermann, et al., "Efficient methods for attachment of thiol specific probes to the 3'-ends of synthetic oligodeoxyribonucleotides", <i>Nucleic Acids Research</i> , 1987, 15, 5305-5321	
	110	Hyrup, B. And Nielsen, P., "Peptide Nucleic Acids (PNA): Synthesis, Properties and Potential Applications", <i>Bioorganic &amp; Med. Chem.</i> , 1996, 4, 5-23	
	111	Monia, et al., "Antitumor activity of a phosphorothioate antisense oligodeoxynucleotide targeted against c-raf kinase", <i>Nature Medicine</i> , 1996, 2, 668-675	
	112	Ohtsuki, et al., "Isolation and purification of double-stranded ribonuclease from calf thymus", <i>J. Biol. Chem.</i> , 1977, 252, 483-491	
<b>EXAMINER</b>		<b>DATE CONSIDERED</b>	

<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office		Docket No. ISIS-5318	Application No. 10/700,939
		Applicant David J. Ecker, et al.	
		Filing Date November 4, 2003	Group 1645
		Confirmation No. 5964	
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>			
Sw	113	Agrawal, S. et al., "Synthesis and Anti-HIV Activity of Oligoribonucleotides and Their Phosphorothioate Analogs," <i>Ann. N.Y. Acad. Sci.</i> , 1992, 2-10	
	114	Agrawal, S., "Antisense Oligonucleotides: Towards Clinical Trials," <i>TIBTECH</i> , 1996, 14, 376-388	
	115	Arya, S. K. et al., "Inhibition of RNA Directed DNA Polymerase of Murine Leukemia Virus by 2'-O-Alkylated Polyadenylic Acids," <i>Biochemical and Biophysical Research Communications</i> , 1974, 59(2), 608-615	
	116	Arya, S. K. et al., "Inhibition of Synthesis of Murine Leukemia Virus in Cultured Cells by Polyribonucleotides and Their 2'-O-Alkyl Derivatives," <i>Molecular Pharmacology</i> , 1976, 12, 234-241	
	117	Branch, A., "A Good Antisense is Hard to Find," <i>TIBS</i> , 1998, 23, 45-50	
	118	DeClercq, E. et al., "Influence of various 2- and 2'-substituted polyadenyl acids on murine leukemia virus reverse transcriptase," <i>Cancer Letters</i> , 1979, 7, 27-37	
	119	Hobbs, J. et al., "Polynucleotides Containing 2'-Amino 2'-deoxyribose and 2'-Azido-2'-deoxyribose <sup>†</sup> ," <i>Biochem.</i> , 1973, 12, 5138-5145	
	120	Hobbs, J. et al., "Poly 2'-Deoxy-2'-Aminouridylic Acid," 1972, 46(4), 1509-1515	
	121	Hobbs, J. et al., "Polynucleotides Containing 2'-Chloro-2'-deoxyribose," <i>Biochem.</i> , Eckstein et al., Ed., 1972, 11, 4336-4344	
	122	Pieken, W. et al., "Kinetic Characterization of Ribonuclease-Resistant 2'-Modified Hammerhead Ribozymes," <i>Science</i> , 1991, 253, 314-317	
<b>EXAMINER</b>		<b>DATE CONSIDERED</b>	



<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office		Docket No. ISIS-5318	Application No. 10/700,939
		Applicant David J. Ecker, et al.	
		Filing Date November 4, 2003	Group 1645
		Confirmation No. 5964	
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>			
30	123	Pilet, J. et al., "Structural parameters of single and double helical polyribonucleotides," <i>Biochem Biophys Res Commun</i> , 1973, 52(2), 517-523	
	124	Rottman, F. et al., "Polynucleotides Containing 2'-O-Methyladenosine. I. Synthesis by Polynucleotide Phosphorylase," <i>Biochem</i> , 1968, 7, 2634-2641	
	125	Rottman, F. et al., "Polymers Containing 2'-O-Methylnucleotides. II. Synthesis of Heteropolymers," <i>Biochem</i> , 1969, 8(11), 4354-4361	
	126	Shibahara, S. et al., "Inhibition of human immunodeficiency virus (HIV-1) replication by synthetic oligo-RNA derivatives," <i>Nucl. Acids Res.</i> , 1989, 17(1), 239-252	
	127	Wincott et al., "Synthesis, deprotection, analysis and purification of RNA and ribozymes," <i>Nucl. Acids Res.</i> , 1995, 23(14), 2677-2684	
	128	Zmudzka, B. et al., "Poly 2'-O-methylcytidylic acid and the role of the 2'-hydroxyl in polynucleotide structure," <i>Biochem Biophys Res Commun</i> , 1969, 37(6), 895-901	
	129	Bass, B.L., "Double-stranded RNA as a template for gene silencing," <i>Cell</i> , April 28, 2000, 101, 235-238	
	130	Boutla, A., et al., "Short 5'-phosphorylated double-stranded RNAs induce RNA interference in <i>Drosophila</i> ," <i>Curr. Biol.</i> , 2001, 11, 1776-1780	
	131	Brantl, S., "Antisense-RNA regulation and RNA interference," <i>Biochimica et Biophysica Acta</i> , 2002, 1575, 15-25	
	132	Chiu, Y.-L., et al., "RNAi in human cells: basic structural and functional features of small interfering RNA," <i>Molecular Cell</i> , September 2002, 10, 549-561	
<b>EXAMINER</b>		<b>DATE CONSIDERED</b>	

<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office	Docket No. ISIS-5318	Application No. 10/700,939
	Applicant David J. Ecker, et al.	
	Filing Date November 4, 2003	Group 1645
	Confirmation No. 5964	
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>		
2w	133	Cogoni, C., et al., "Post-transcriptional gene silencing across kingdoms," <i>Curr. Opinion in Genes Dev.</i> , 2000, 10, 638-643
	134	Elbashir, S.M., et al., "Functional anatomy of siRNAs for mediating efficient RNAi in <i>Drosophila melanogaster</i> embryo lysate," <i>EMBO J.</i> , 2001, 20(23), 6877-6888
	135	Elbashir, S.M., et al., "RNA interference is mediated by 21- and -22-nucleotide RNA's," <i>Genes &amp; Dev.</i> , 2001, 15, 188-200
	136	Elbashir, S.M., et al., "Duplexes of 21-nucleotide RNAs mediate RNA interference in cultured mammalian cells," <i>Nature</i> , May 24, 2001, 411, 494-498
	137	Fire, A., et al., "Potent and specific genetic interference by double-stranded RNA in <i>caenorhabditis elegans</i> ," <i>Nature</i> , February 19, 1998, 391, 806-811
	138	Guo, S., et al., " <i>par-1</i> , a gene required for establishing polarity in <i>C. elegans</i> embryos, encodes a putative Ser/Thr kinase that is asymmetrically distributed," <i>Cell</i> , May 19, 1995, 81, 611-620
	139	Gura, T., "A silence that speaks volumes," <i>Nature</i> , April 20, 2000, 404, 804-808
	140	Jorgensen, R.A., et al., "Chalcone synthase cosuppression phenotypes in petunia flowers: comparison of sense vs. antisense constructs and single-copy vs. complex T-DNA sequences," <i>Plant Mol. Biol.</i> , 1996, 31, 957-973
	141	Lipardi, C., et al., "RNAi as random degradative PCR: siRNA primers convert mRNA into dsRNAs that are degraded to generate new siRNAs," <i>Cell</i> , November 2, 2001, 107, 297-307
	142	Martinez, J., et al., "Single-stranded antisense siRNAs guide target RNA cleavage in RNAi," <i>Cell</i> , September 6, 2002, 110, 563-574
<b>EXAMINER</b>		<b>DATE CONSIDERED</b>

<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office		Docket No. ISIS-5318	Application No. 10/700,939
		Applicant David J. Ecker, et al.	
		Filing Date November 4, 2003	Group 1645
		Confirmation No. 5964	
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>			
	143	Mellitzer, G., et al., "Spatial and temporal 'knock down' of gene expression by electroporation of double-stranded RNA and morpholinos into early postimplantation mouse embryos," <i>Mechanisms of Development</i> , 2002, 118, 57-63	
	144	Montgomery, M.K., et al., "RNA as a target of double-stranded RNA-mediated genetic interference in <i>Caenorhabditis elegans</i> ," <i>Proc. Natl. Acad. Sci. USA</i> , December 1998, 95, 15502-15507	
	145	Napoli, C., et al., "introduction of a chimeric chalcone synthase gene into petunia results in reversible co-suppression of homologous genes <i>in trans</i> ," <i>Plant Cell</i> , April 1990, 2, 279-289	
	146	Nishikura, K., "A short primer on RNAi: RNA-directed RNA polymerase acts as a key catalyst," <i>Cell</i> , November 16, 2001, 107, 415-418	
	147	Parrish, S., et al., "Functional anatomy of a dsRNA trigger: differential requirement for the two trigger strands in RNA interference," <i>Molecular Cell</i> , November 2000, 6, 1077-1087	
	148	Schwarz, D.S., et al., "Evidence that siRNAs function as guides, not primers, in the <i>Drosophila</i> and human RNAi pathways," <i>Molecular Cell</i> , September 2002, 10, 537-548	
	149	Sijen, T., et al., "On the role of RNA amplification in dsRNA-triggered gene silencing," <i>Cell</i> , November 16, 2001, 107, 465-476	
	150	Tabara, H., et al., "RNAi in <i>C. elegans</i> : soaking in the genome sequence," <i>Science</i> , October 16, 1998, 282, 430-431	
	151	Tijsterman, M., et al., "RNA helicase MUT-14-dependent gene silencing triggered in <i>C. elegans</i> by short antisense RNAs," <i>Science</i> , January 25, 2002, 295, 694-697	
	152	Timmons, L., et al., "Ingestion of bacterially expressed dsRNAs can produce specific and potent genetic interferences in <i>Caenorhabditis elegans</i> ," <i>Gene</i> , 2001, 263, 103-112	
<b>EXAMINER</b>		<b>DATE CONSIDERED</b>	

<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office		Docket No. ISIS-5318	Application No. 10/700,939
		Applicant David J. Ecker, et al.	
		Filing Date November 4, 2003	Group 1645
		Confirmation No. 5964	
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>			
Sw	153	Timmons, L., et al., "Specific interference by ingested dsRNA," <i>Nature</i> , October 29, 1998, 395, page 854	
	154	Tuschl, T., et al., "Targeted mRNA degradation by double-stranded RNA in vitro," <i>Genes &amp; Dev.</i> , 1999, 13, 3191-3197	
	155	Carmell, et al., <i>Genes &amp; Develop.</i> , 2002, 16, 2733-2742	
EXAMINER <i>L. Sollenberger</i>		DATE CONSIDERED <i>7/6/06</i>	

<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office				Docket No. ISIS-5318		Application No. 10/700,939	
				Applicant David J. Ecker, et al.			
				Filing Date November 4, 2003		Group 1645	
				Confirmation No. 5964			
<b>U. S. PATENT DOCUMENTS</b>							
Examiner Initial		Document No.	Date	Name	Class	Subclass	
EW	156	3,687,808	8/29/72	Merigan, et al.	195	28	
	157	5,013,830	5/7/91	Ohtsuka, et al.	536	27	
	158	5,023,243	6/11/91	Tullis	514	44	
	159	5,142,047	8/25/92	Tullis	514	44	
	160	5,149,797	9/22/92	Pederson, et al.	536	27	
	161	5,177,198	1/5/93	Spielvogel, et al.	514	45	
	162	5,130,302	7/14/92	Spielvogel, et al.	514	45	
	163	5,223,618	6/29/93	Cook, et al.	544	276	
	164	5,235,033	8/10/93	Summerton, et al.	528	391	
	165	5,256,775	10/26/93	Froehler	536	25.6	
	166	5,264,562	11/23/93	Matteucci	536	23.1	
	167	5,264,564	11/23/93	Matteucci	536	23.1	
	168	5,359,044	10/25/94	Cook, et al.	536	23.1	
	169	5,366,878	11/22/94	Pederson, et al.	435	91.3	
	170	5,378,825	1/3/95	Cook, et al.	536	25.34	
	171	5,459,255	10/17/95	Cook, et al.	536	27.13	
<b>EXAMINER</b>				<b>DATE CONSIDERED</b>			

<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office				Docket No. ISIS-5318		Application No. 10/700,939	
				Applicant David J. Ecker, et al.			
				Filing Date November 4, 2003		Group 1645	
				Confirmation No. 5964			
<b>U. S. PATENT DOCUMENTS</b>							
Examiner Initial		Document No.	Date	Name	Class	Subclass	
<i>SW</i>	172	5,457,191	10/10/95	Cook, et al.	536	27.13	
	173	5,466,786	11/14/95	Buhr, et al.	536	26.26	
	174	5,476,925	12/19/95	Letsinger, et al.	536	23.1	
	175	5,484,908	1/16/96	Froehler, et al.	536	24.31	
	176	5,506,351	4/9/96	McGee	536	55.3	
	177	5,514,786	5/7/96	Cook, et al.			
	178	5,386,023	1/31/95	Sanghvi, et al.	536	25.3	
	179	5,489,677	2/6/96	Sanghvi, et al.	536	22.1	
	180	5,539,083	7/23/96	Cook, et al.	530	333	
	181	5,506,337	4/9/96	Summerton, et al.	528	391	
	182	5,403,711	4/4/95	Walder, et al.	435	6	
	183	5,508,270	4/16/96	Baxter, et al.	514	47	
	184	4,373,071	2/8/83	Itakura	525	375	
	185	4,401,796	8/30/83	Itakura	525	340	
	186	4,469,863	9/4/84	Ts'o., et al.	536	27	
	187	4,507,433	3/26/85	Miller, et al.	525	54.11	
<b>EXAMINER</b>				<b>DATE CONSIDERED</b>			

<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office				Docket No. ISIS-5318		Application No. 10/700,939	
				Applicant David J. Ecker, et al.			
				Filing Date November 4, 2003		Group 1645	
				Confirmation No. 5964			
<b>U. S. PATENT DOCUMENTS</b>							
Examiner Initial		Document No.	Date	Name	Class	Subclass	
SW	188	4,812,512	3/14/89	Buendia, et al.	525	54.11	
	189	4,908,405	3/13/90	Bayer, et al.	525	61	
	190	5,391,667	2/21/95	Dellinger	526	264	
	191	5,519,134	5/21/96	Acevedo, et al.	544	243	
	192	5,614,617	3/25/97	Cook, et al.	536	23.1	
	193	5,962,425	10/05/99	Walder et al.	514	44	
	194	5,804,683	09/08/98	Usman, et al.	536	25.31	
	195	5,891,683	04/06/99	Usman, et al.	435	91.31	
	196	5,804,683	09/08/98	Usman et al.	536	25.31	
	197	5,891,683	04/06/99	Usman et al.	435	91.31	
	198	5,214,134	05/25/93	Weis, et al.	536	25.3	
	199	5,216,141	06/01/93	Benner	536	27.13	
	200	5,223,618	06/29/93	Cook, et al.	544	276	
	201	5,264,562	11/23/93	Matteucci	536	23.1	
	202	5,264,564	11/23/93	Matteucci	536	23.1	
	203	5,434,257	07/18/95	Matteucci, et al.	536	24.3	
<b>EXAMINER</b>				<b>DATE CONSIDERED</b>			

<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office				Docket No. ISIS-5318		Application No. 10/700,939	
				Applicant David J. Ecker, et al.			
				Filing Date November 4, 2003		Group 1645	
				Confirmation No. 5964			
<b>U. S. PATENT DOCUMENTS</b>							
Examiner Initial		Document No.	Date	Name	Class	Subclass	
EW	204	5,470,967	11/28/95	Huie, et al.	536	24.3	
	205	5,489,677	02/06/96	Sanghvi, et al.	536	22.1	
	206	5,541,307	07/30/96	Cook, et al.	536	23.1	
	207	5,561,225	10/01/96	Maddry, et al.	536	23.1	
	208	5,596,086	01/21/97	Matteucci, et al.	536	22.1	
	209	5,602,240	02/11/97	De Mesmaeker, et al.	536	22.1	
	210	5,610,289	03/11/97	Cook, et al.	536	25.34	
	211	5,618,704	04/08/97	Sanghvi, et al.	435	91.5	
	212	5,663,312	09/02/97	Chaturvedula	536	22.1	
	213	5,677,437	10/14/97	Teng, et al.	536	23.1	
	214	5,677,439	10/14/97	Weis, et al.	536	23.1	
	215	5,777,092	07/07/98	Cook, et al.	536	23.1	
	216	5,780,607	07/14/98	Goodnow, Jr., et al.	536	22.1	
	217	5,792,608	08/11/98	Swaminathan, et al.	435	6	
	218	5,792,844	08/11/98	Sanghvi, et al.	536	23.1	
	219	5,808,023	09/15/98	Sanghvi, et al.	536	23.1	
	220	5,817,781	10/06/98	Swaminathan, et al.	536	22.1	
<b>EXAMINER</b>				<b>DATE CONSIDERED</b>			



<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office				Docket No. ISIS-5318		Application No. 10/700,939	
				Applicant David J. Ecker, et al.			
				Filing Date November 4, 2003		Group 1645	
				Confirmation No. 5964			
<b>U. S. PATENT DOCUMENTS</b>							
Examiner Initial		Document No.	Date	Name	Class	Subclass	
SW	221	5,898,031	04/27/99	Crooke	435	172.3	
	222	5,965,721	10/12/99	Cook, et al.	536	23.1	
	223	5,969,118	10/19/99	Sanghvi, et al.	536	22.1	
	224	6,013,785	01/11/00	Bruice, et al.	536	24.5	
	225	6,107,094	08/22/00	Crooke	435	455	
	226	6,331,617 B1	12/18/01	Weeks, et al.	536	24.5	
	227	6,410,702 B1	06/25/02	Swaminathan, et al.	536	23.1	
	228	6,420,549 B1	07/16/02	Cook, et al.	536	24.2	
	229	4,321,365	03/23/82	Wu, et al.	536	27	
	230	4,362,867	12/07/82	Paddock	536	27	
	231	4,775,619	10/04/88	Urdea	435	6	
	232	4,855,225	08/08/89	Fung, et al.	435	6	
	233	4,997,828	03/05/91	Kappas, et al.	514	184	
	234	5,151,507	09/29/92	Hobbs, Jr., et al.	536	23	
<b>EXAMINER</b>				<b>DATE CONSIDERED</b>			

<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office				Docket No. ISIS-5318		Application No. 10/700,939	
				Applicant David J. Ecker, et al.			
				Filing Date November 4, 2003		Group 1645	
				Confirmation No. 5964			
<b>U. S. PATENT DOCUMENTS</b>							
Examiner Initial		Document No.	Date	Name	Class	Subclass	
SW	235	5,188,934	02/23/93	Menchen, et al.	435	6	
	236	5,208,149	05/04/93	Inouye	435	91	
	237	5,380,833	01/10/95	Urdea	536	22.1	
	238	5,424,413	06/13/95	Hogan, et al.	536	24.31	
	239	5,426,180	06/20/95	Kool	536	25.3	
	240	5,473,060	12/05/95	Gryaznov, et al.	536	24.3	
	241	5,484,904	01/16/96	Nilsen, et al.	536	23.1	
	242	5,512,438	04/30/96	Ecker	435	6	
	243	5,514,546	05/07/96	Kool	435	6	
	244	5,516,641	05/14/96	Ullman, et al.	435	6	
	245	5,538,872	07/23/96	Bahl, et al.	435	91.52	
	246	5,543,507	08/06/96	Cook, et al.	536	23.1	
	247	5,556,752	09/17/96	Lockhart, et al.	435	6	
	248	5,561,043	10/01/96	Cantor, et al.	435	6	
	249	5,571,903	11/05/96	Gryaznov	536	23.1	
	250	5,624,802	04/29/97	Urdea, et al.	435	6	
	251	5,683,874	11/04/97	Kool	435	6	
	252	5,708,154	01/13/98	Smith, et al.	536	23.1	
<b>EXAMINER</b>				<b>DATE CONSIDERED</b>			

<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office				Docket No. ISIS-5318		Application No. 10/700,939	
				Applicant David J. Ecker, et al.			
				Filing Date November 4, 2003		Group 1645	
				Confirmation No. 5964			
<b>U. S. PATENT DOCUMENTS</b>							
Examiner Initial		Document No.	Date	Name	Class	Subclass	
EW	253	5,712,128	01/27/98	Been, et al.	435	91.31	
	254	5,760,012	06/02/98	Kmiec, et al.	514	44	
	255	5,766,903	06/16/98	Sarnow, et al.	435	172.3	
	256	5,919,917	07/06/99	Shiono, et al.	536	23.1	
	257	6,072,044	06/06/00	Seeman, et al.	536	22.1	
	258	6,180,777 B1	01/30/01	Horn	536	25.3	
	259	6,274,723 B1	08/14/01	Nilsen	536	24.3	
<b>EXAMINER</b>				<b>DATE CONSIDERED</b>			

<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office				Docket No. ISIS-5318		Application No. 10/700,939	
				Applicant David J. Ecker, et al.			
				Filing Date November 4, 2003		Group 1645	
				Confirmation No. 5964			
<b>FOREIGN PATENT DOCUMENTS</b>							
Examiner Initial		Document No.	Date	Country	Translation		
					YES	NO	
SW	260	WO 92/22651	12/23/92	PCT			
	261	WO 92/20822	11/26/92	PCT			
	262	WO 92/20823	11/26/92	PCT			
	263	WO 94/17093	08/04/94	PCT			
	264	WO 94/02499	02/03/94	PCT			
	265	WO 94/02501	03/02/94	PCT			
	266	339,842	02/11/89	EPO			
	267	2-264792	29/10/90	Japan			
	268	WO/07065	04/30/92	PCT			
	269	WO 99/32619	07/01/99	PCT			
	270	WO 00/44895	08/03/00	PCT	ABSTRACT ONLY	X abstract	
	271	WO 00/44914	08/03/00	PCT			
272	WO 00/49035	08/24/00	PCT				
<b>EXAMINER</b>				<b>DATE CONSIDERED</b>			

**Form PTO-1449 Modified**

List of Patent and Publications  
Cited by Applicant  
(Use several sheets if necessary)

U.S. Department of Commerce  
Patent and Trademark Office

Docket No.  
ISIS-5318

Application No.  
10/700,939

Applicant  
David J. Ecker, et al.

Filing Date  
November 4, 2003

Group  
1645

Confirmation No.  
5964

**FOREIGN PATENT DOCUMENTS**

Examiner Initial		Document No.	Date	Country	Translation	
					YES	NO
<i>SW</i>	273	WO 00/63364	10/26/00	PCT		
	274	WO 01/29058	04/26/01	PCT		
	275	WO 01/36641 A2	05/25/01	PCT		
	276	WO 01/36646 A1	05/25/01	PCT		
	277	WO 01/48183 A2	07/05/01	PCT		
	278	WO 01/75164 A3	10/11/01	PCT		
EXAMINER	<i>L. Wollenberger</i>			DATE CONSIDERED <i>7/6/06</i>		



Sheet 1 of 2

<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office	Docket No. ISIS-5318	Application No. 10/700,939
	Applicant David J. Ecker, et al.	
	Filing Date November 4, 2003	Group 1645
	Confirmation No. 5964	
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>		
<i>J.W.</i>	281	Copy of the PCT International Search Report dated August 2, 2004 (PCT/US03/35068)
<i>/</i>	283	Zhou, Y., et al., "Post-transcriptional suppression of gene expression in xenopus embryos by small interfering RNA," <i>Nucleic Acids Res.</i> , 2002, 30(7), 1664-1669
<b>EXAMINER</b>	<i>L. Wollenberger</i>	<b>DATE CONSIDERED</b> 7/6/06

<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office	Docket No. ISIS-5318	Application No. 10/700,939
	Applicant David J. Ecker, et al.	
	Filing Date November 4, 2003	Group 1645
	Confirmation No. 5964	

## U. S. PATENT DOCUMENTS

Examiner Initial		Document No.	Date	Name	Class	Subclass

## FOREIGN PATENT DOCUMENTS

Examiner Initial		Document No.	Date	Country	Translation	
					YES	NO
EW	284	WO 94/23026 A1	10/13/94	PCT	X abstract	
				Abstract Only		
EXAMINER	J Wollenberger			DATE CONSIDERED	7/6/06	



Sheet 1 of 2

<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office	Docket No. ISIS-5318	Application No. 10/700,939
	Applicant David J. Ecker, et al.	
	Filing Date November 4, 2003	Group 1645
	Confirmation No. 5964	
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>		
285	Copy of the PCT International Search Report dated August 23, 2004 (PCT/US03/35063)	
286	Beigelman, L., et al., "Chemical modification of hammerhead ribozymes," <i>J. of Biological Chem.</i> , 1995, 270(43), 257082-25708	
287	Caplen, N.J., et al., "Specific inhibition of gene expression by small double-stranded RNAs in invertebrate and vertebrate systems," <i>PNAS</i> , 2001, 98(17), 9742-9747	
288	Czauderna, F., et al., "Structural variations and stabilizing modifications of synthetic siRNAs in mammalian cells," <i>Nucleic Acids Res.</i> , 2003, 31(11), 2705-2716	
289	Paddison, P.J., et al., "Stable suppression of gene expression by RNAi in mammalian cells," <i>PNAS</i> , 2002, 99(3), 1443-1448	
290	Sui, G., et al., "A DNA vector-based RNAi technology to suppress gene expression in mammalian cells," <i>PNAS</i> , 2002, 99(8), 5515-5520	
291	Yu, J.-Y., et al., "RNA interference by expression of short-interfering RNAs and hairpin RNAs in mammalian cells," <i>PNAS</i> , 2002, 99(9), 6047-6052	
EXAMINER	S. Wollenberger	DATE CONSIDERED 7/6/06



<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office	Docket No. ISIS-5318	Application No. 10/700,939
	Applicant David J. Ecker, et al.	
	Filing Date November 4, 2003	Group 1645
	Confirmation No. 5964	

## U. S. PATENT DOCUMENTS

Examiner Initial		Document No.	Date	Name	Class	Subclass
SW	292	2003/0143732 A1	07/31/03	Fosnaugh, et al.	435	325

## FOREIGN PATENT DOCUMENTS

Examiner Initial		Document No.	Date	Country	Translation	
					YES	NO

EXAMINER	<i>S. Wollenberger</i>	DATE CONSIDERED	<i>7/6/06</i>
----------	------------------------	-----------------	---------------



<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office	Docket No. ISIS-5318	Application No. 10/700,939
	Applicant David J. Ecker, et al.	
	Filing Date November 4, 2003	Group 1645
	Confirmation No. 5964	

**U. S. PATENT DOCUMENTS**

Examiner Initial		Document No.	Date	Name	Class	Subclass
* <i>JW</i>	293	5,760,209	06/02/98	Cheruvallath, et al.	536	25.34
* <i>JW</i>	294	5,955,443	09/21/99	Bennett, et al.	514	44
* <i>JW</i>	295	2004/0018999 A1	01/29/04	Beach, et al.	514	44

**FOREIGN PATENT DOCUMENTS**

Examiner Initial		Document No.	Date	Country	Translation	
					YES	NO
* <i>JW</i>	296	WO 02/44321 A2	06/06/02	PCT		

**EXAMINER***J. Wallenberg***DATE CONSIDERED***7/6/06*

\* Cited on the PCT International Search Report dated January 4, 2005 (PCT/US03/34906).



Sheet 1 of 2

<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office	Docket No. ISIS-5318	Application No. 10/700,939
	Applicant David J. Ecker, et al.	
	Filing Date November 4, 2003	Group 1645
	Confirmation No. 5964	
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>		
* <i>plw</i>	297	Amarzguoui, M., et al., "Tolerance for mutations and chemical modifications in a siRNA," <i>Nucleic Acids Res.</i> , <b>2003</b> , 31(2), 589-595
** <i>plw</i>	298	Parrish, S., et al., "Functional anatomy of a dsRNA trigger: differential requirement for the two trigger strands in RNA interference," <i>Molecular Cell</i> , <b>2000</b> , 6, 1077-1087
**** <i>plw</i>	299	Wang, J., et al., "Cyclohexene nucleic acids (CeNA): serum stable oligonucleotides that activate RNase H and increase duplex stability with complementary RNA," <i>J. Am. Chem. Soc.</i> , <b>2000</b> , 122, 8595-8602
<b>EXAMINER</b> <i>L. Wallenborger</i>	<b>DATE CONSIDERED</b> 7/6/06	

\* Cited on PCT International Search Report dated January 6, 2005 (PCT/US03/35071).

\*\* Cited on PCT International Search Report dated January 10, 2005 (PCT/US03/35067).

\*\*\* Cited on PCT International Search Report dated January 4, 2005 (PCT/US03/35146).

\*\*\*\* Cited on PCT International Search Report dated January 7, 2005 (PCT/US03/35061).

© 2005 WW

<b>Form PTO-1449 Modified</b>				Docket No. ISIS-5318	Application No. 10/700,939	
List of Patent and Publications Cited by Applicant (Use several sheets if necessary)				Applicant David J. Ecker, et al.		
				Filing Date November 4, 2003	Group 1645	
U.S. Department of Commerce Patent and Trademark Office				Confirmation No. 5964		
<b>U. S. PATENT DOCUMENTS</b>						
Examiner Initial		Document No.	Date	Name	Class	Subclass
**** <i>SW</i>	300	5,567,811	10/22/96	Mistura, et al.	536	25.34
****	301	5,576,427	11/19/96	Cook, et al.	536	23.1
****	302	5,607,922	03/04/97	De Clercq, et al.	514	43
****	303	5,639,873	06/17/97	Barascut, et al.	536	25.3
****	304	5,681,940	10/28/97	Wang, et al.	536	22.1
***	305	6,150,510	11/21/00	Seela, et al.	536	22.1
***	306	6,294,522 B1	09/25/01	Zablocki, et al.	541	46
****	307	6,329,346 B1	12/11/01	Muhlegger, et al.	514	44
***	308	2002/0160393 A1	10/31/02	Symonds, et al.	435	6
*	309	2003/0206887 A1	11/06/03	Morrissey, et al.	424	93.2
<b>FOREIGN PATENT DOCUMENTS</b>						
Examiner Initial		Document No.	Date	Country	Translation	
					YES	NO
** <i>SW</i>	310	WO 03/072705 A2	09/04/03	PCT		
<b>EXAMINER</b> <i>S. Wollenberger</i>				<b>DATE CONSIDERED</b> <i>7/6/06</i>		

\* Cited on PCT International Search Report dated January 6, 2005 (PCT/US03/35071).

\*\* Cited on PCT International Search Report dated January 10, 2005 (PCT/US03/35067).

\*\*\*Cited on PCT International Search Report dated January 4, 2005 (PCT/US03/35146).

\*\*\*\*Cited on PCT International Search Report dated January 7, 2005 (PCT/US03/35061).



Sheet 1 of 2

<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office		Docket No. ISIS-5318	Application No. 10/700,939
		Applicant David J. Ecker, et al.	
		Filing Date November 4, 2003	Group 1645
		Confirmation No. 5964	
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>			
* JW	311	Rajwanshi, V.K., et al., "LNA stereoisomers: <i>xylo</i> -LNA ( $\beta$ -D- <i>xylo</i> configured locked nucleic acid) and $\alpha$ -L-ribo configured locked nucleic acid)," <i>Chem. Commun.</i> , 1999, 1395-1396	
* JW	312	Steffens, R., et al., "Synthesis and thermodynamic and biophysical properties of tricycle-DNA," <i>Am. Chem. Soc.</i> , 1999, 121(14), 3249-3255	
<b>EXAMINER</b> <i>Jo Wollenberger</i>		<b>DATE CONSIDERED</b> 7/6/06	

\* Cited on PCT Written Opinion dated January 28, 2005 (PCT/US03/35072); PCT International Search Report dated February 16, 2005 (PCT/US03/35141); PCT International Search Report dated February 18, 2005 (PCT/US03/35064).

© 2005 WW



<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office	Docket No. ISIS-5318	Application No. 10/700,939
	Applicant David J. Ecker, et al.	
	Filing Date November 4, 2003	Group 1645
	Confirmation No. 5964	

**U. S. PATENT DOCUMENTS**

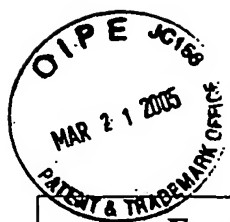
Examiner Initial		Document No.	Date	Name	Class	Subclass
* SW	313	6,436,640 B1	08/20/02	Simmons, et al.	435	6
* SW	314	2002/0068708 A1	06/06/02	Wengel, et al.	514	44

**FOREIGN PATENT DOCUMENTS**

Examiner Initial		Document No.	Date	Country	Translation	
					YES	NO

EXAMINER <i>S. Wollenberger</i>	DATE CONSIDERED <i>7/6/06</i>
---------------------------------	-------------------------------

\* Cited on PCT Written Opinion dated January 28, 2005 (PCT/US03/35072); PCT International Search Report dated February 16, 2005 (PCT/US03/35141); PCT International Search Report dated February 18, 2005 (PCT/US03/35064).

**Form PTO-1449 Modified**List of Patent and Publications  
Cited by Applicant  
(Use several sheets if necessary)U.S. Department of Commerce  
Patent and Trademark OfficeDocket No.  
ISIS-5318Application No.  
10/700,939Applicant  
David J. Ecker, et al.Filing Date  
November 4, 2003Group  
1645Confirmation No.  
5964**U. S. PATENT DOCUMENTS**

Examiner Initial		Document No.	Date	Name	Class	Subclass
* <i>pw</i>	315	2002/0081736 A1	06/27/02	Conroy, et al.	435	455

**FOREIGN PATENT DOCUMENTS**

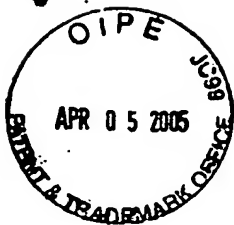
Examiner Initial		Document No.	Date	Country	Translation	
					YES	NO

EXAMINER *R. Wollenberger*

DATE CONSIDERED

*7/6/06*

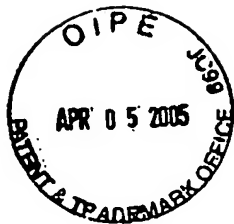
\* Cited on the PCT Written Opinion dated March 7, 2005 (PCT/US03/35146).



Sheet 1 of 2

<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office	Docket No. ISIS-5318	Application No. 10/700,939
	Applicant David J. Ecker, et al.	
	Filing Date November 4, 2003	Group 1645
	Confirmation No. 5964	
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>		
SW	316	Hunziker, J., et al., "Nucleic acid analogues: synthesis and properties," <i>Modern Synthetic Methods</i> , 1995, 331, 334-417.
EXAMINER	Louis W. Schlegel	DATE CONSIDERED 7/6/06





Sheet 2 of 2

<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office	Docket No. ISIS-5318	Application No. 10/700,939
	Applicant David J. Ecker, et al.	
	Filing Date November 4, 2003	Group 1645
	Confirmation No. 5964	

**U. S. PATENT DOCUMENTS**

Examiner Initial		Document No.	Date	Name	Class	Subclass
SW	317	5,808,036	09/15/98	Kool	536	24.3
SW	318	2002/0132788 A1	09/19/02	Lewis, et al.	514	44

**FOREIGN PATENT DOCUMENTS**

Examiner Initial		Document No.	Date	Country	Translation	
					YES	NO
SW	319	WO 94/01550	01/20/94	PCT		

EXAMINER

J Wallenberg

DATE CONSIDERED 7/6/06

**Form PTO-1449 Modified**

List of Patent and Publications  
Cited by Applicant  
(Use several sheets if necessary)

U.S. Department of Commerce  
Patent and Trademark Office

Docket No.  
**ISIS-5318**

Application No.  
**10/700,939**

Applicant  
**David J. Ecker, et al.**

Filing Date  
**November 4, 2003**

Group  
**1645**

Confirmation No.  
**5964**

**U. S. PATENT DOCUMENTS**

Examiner Initial		Document No.	Date	Name	Class	Subclass
<i>ΔW</i>	296	5,034,506	07/23/91	Summerton, et al.	528	391
	297	5,780,607	07/14/98	Goodnow, Jr. et al.	536	22.1
	298	6,046,306	04/04/00	Breipohl, et al.	530	322
	299	6,395,474 B1	05/28/02	Buchardt, et al.	435	6

**FOREIGN PATENT DOCUMENTS**

Examiner Initial		Document No.	Date	Country	Translation	
					YES	NO
<i>ΔW</i>	300	WO 86/05518 A1	09/25/86	PCT		

**EXAMINER***L. Wollenberger***DATE CONSIDERED***7/6/06*